

1. Answer the following for the function  $f(x) = 2x^3 - 15x^2 + 24x + 1$ .

(a) Where is  $f$  increasing/decreasing?

(b) Find all local max/min.

(c) Where is  $f$  concave up/down?

(d) Find all inflection points.

(e) Graph  $f(x)$ .

2. Answer the following for the function  $f(x) = \frac{1}{4}x^4 - 2x^3 + \frac{9}{2}x^2$ .

(a) Where is  $f$  increasing/decreasing?

(b) Find all local max/min.

(c) Where is  $f$  concave up/down?

(d) Find all inflection points.

(e) Graph  $f(x)$ .